

Getting Started with Selenium

AUTOMATING THE BROWSER



Jason Roberts

.NET MVP

@robertsjason dontcodetired.com



Overview



Overview of WebDriver

IWebDriver interface and inheritance hierarchy

HTML element selection

Finding by ID, name, css class, etc.

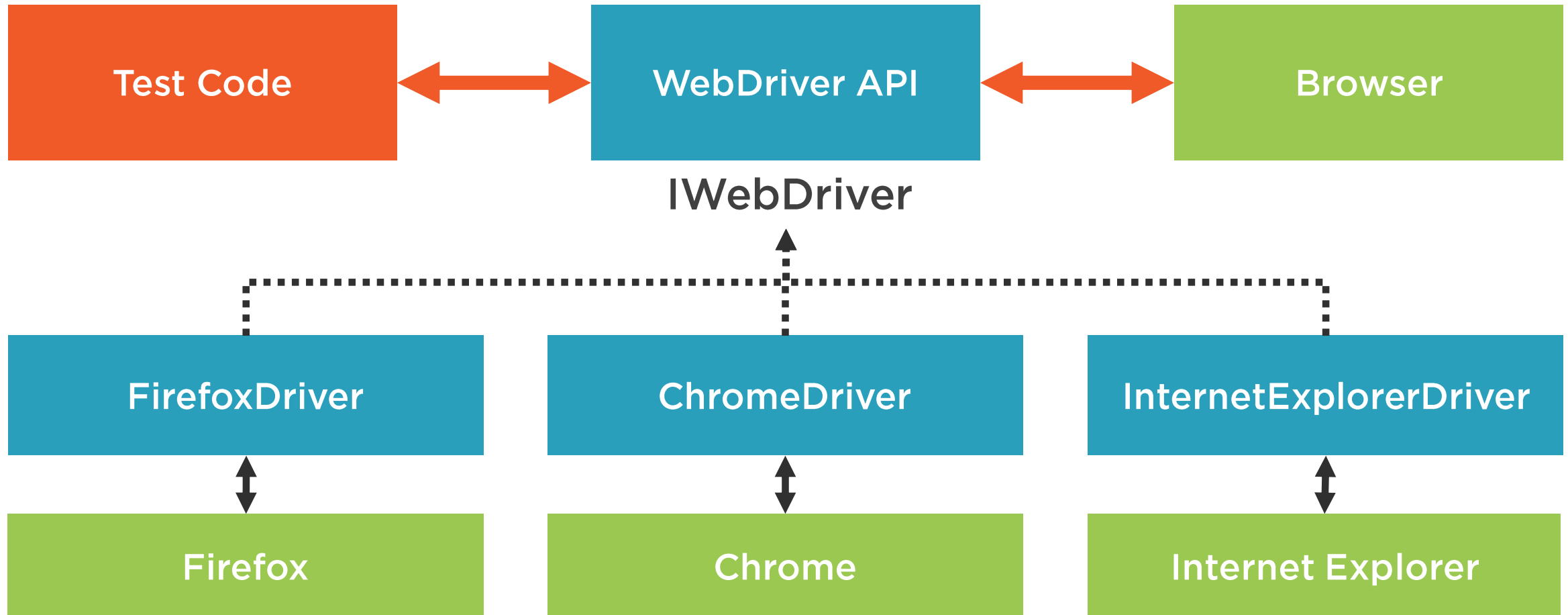
Installing into test project

Write first test to navigate to start application page

Write second test to populate and submit loan application



Overview of WebDriver



Overview of WebDriver

```
public class FirefoxDriver : RemoteWebDriver
{
    // advanced ctors & Firefox specific settings
}
```

```
public class RemoteWebDriver : IWebDriver, IDisposable, ...
{
    // implementation of many interfaces
}
```



Overview of WebDriver

```
public interface WebDriver : ISearchContext, ...  
{  
    // properties to get/set URL, get title, etc.  
    // methods to perform navigation, close browser, etc.  
}
```



Overview of WebDriver

```
public interface ISearchContext
{
    WebElement FindElement(By by);
    ReadOnlyCollection<WebElement> FindElements(By by);
}
```

```
public class By
{
    // static methods to locate elements
}
```



HTML Element Selection

Id

Name

ClassName

XPath

LinkText

PartialLinkText

TagName

CssSelector



When deciding how to select an element, where possible choose the least brittle approach, for example ID.



Demo



Getting Started in Visual Studio

Create DemoWebApp.Tests class library project

Install unit testing framework (xUnit.net)

xunit xunit.runner.visualstudio NuGet

Selenium.WebDriver NuGet package



Demo



Creating the First Test

Create new test class

First test “StartApplication”

new FirefoxDriver

Navigate to home URL

Select “start application” link by ID

Click the link

Assert that start loan application page has been loaded (assert title)



Demo



Populating Form
Inputs

New test “SubmitApplication”

new FirefoxDriver

Navigate to loan application page

Type text into name inputs

Choose radio button option

Tick the terms and conditions checkbox



Demo



Submitting the
Form

Locate “submit application” button and click it

Find the `` containing the first name

Read the `` text

Assert it matches the first name that was entered on the previous page



Summary



Overview of WebDriver

Inheritance hierarchy

IWebDriver interface and FirefoxDriver

Installing Selenium WebDriver into test project

Wrote first test to navigate to start application page

`driver.Navigate().GoToUrl()` method

`FindElement(By.Id(...))` method

Second test to populate application form

`SendKeys("Sarah")` & `Click()` methods



Next:

Adding Business Readability
with SpecFlow

